

# AMERICAN BEE JOURNAL



GEORGE W. YORK,  
Editor.

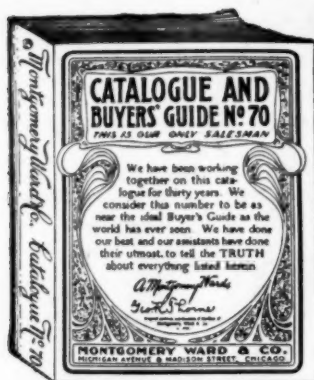
CHICAGO, ILL., MAY 22, 1902.

FORTY-SECOND YEAR  
No. 21.

WEEKLY



A FIELD OF ALFALFA IN FULL BLOOM.—(See page 336 )



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We want every one of our present subscribers to have one or more of these money-maker Queens. We have received most excellent reports from the queens we supplied last season. And this year our queen-breeder says he expects to be able to send out even better Queens, if that is possible. He is one of the very oldest and best queen-breeders. His bees average quite a good deal the longest tongues of any yet measured. The Breeder he will use is direct from Italy, having imported her himself. Her worker-bees are large, of beautiful color, very gentle, scarcely requiring veil or smoke.

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All Queens will be guaranteed to arrive in good condition, and will be clipped, unless otherwise ordered.

### A Warranted Queen for Sending us only TWO NEW YEARLY SUBSCRIBERS.

In order that every one of our subscribers who wants one of these Warranted Queens this season can easily earn it, we will book your order as follows:

**No. 1.**—For sending us the names and addresses of **two new subscribers** to the American Bee Journal and \$2.00, we will mail you **ONE** of these queens free.

**No. 2.**—Or, for sending us **one new** subscription at \$1.00, and 30 cents more (\$1.30), we will mail you a queen, and the Bee Journal for one year to the new subscriber.

**No. 3.**—Or, send us \$1.60 and we will send to you the Bee Journal for one year, and also a queen.

This indeed is an opportunity to get a superior Queen, and at the same time help swell the list of readers of the old American Bee Journal.

We are now ready to book the Queen orders, and also to enroll the new subscriptions. Remember, the sooner you get in your order the earlier you will get your Queen. We hope that every one of our present readers will decide to have at least one of these Queens. Address,

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# AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 THE OLDEST BEE-PAPER IN AMERICA

42d YEAR.

CHICAGO, ILL., MAY 22, 1902.

No. 21.

## \* Editorial. \*

**Answering Comb Honey Lies.**—This should be done in the very same papers that publish the lies. We are very glad to have our readers send us clippings from newspapers showing what is being said on the honey question, but please don't ask us to answer them all in the American Bee Journal. So few of the people who read those lies in the daily press take this journal, that it is hardly worth while for us to devote much time or space to them.

The thing to do, is for the readers who subscribe for and read the newspapers that are guilty of publishing untruths about honey, to write to the editors of such newspapers, placing the truth before them in a courteous manner, and requesting its publication.

Not even the editor of a newspaper can possibly know everything, and if he is only half-witted he will be glad to publish a correction of misrepresentations that have unintentionally appeared in his paper. But it is useless to publish such corrections in a paper not read by the same people who read the misrepresentations in the first place. Something like a paper that for a time tried to correct the errors found in other papers, when its own circulation was only a fraction of the papers it was correcting. It seemed to be almost a flat failure.

**Alfalfa and Irrigation.**—Editor Root having expressed the opinion that alfalfa does not yield nectar except on irrigated lands, Carl F. Buck replies in *Gleanings in Bee-Culture* he does not know what they would do in Kansas if it were not for alfalfa. He says:

Alfalfa does not seem to do much good in Missouri, Illinois, and other eastern States; but in Nebraska, Kansas, Oklahoma, and Indian Territory, alfalfa on the bottom lands does yield honey, in some quantity at least, and in many localities it yields it in abundance—but, of course, not like the irrigated districts of Colorado and other western States.

**Honey-Questions in Newspapers.**—Several of these have appeared recently in a certain Chicago daily newspaper, having been referred to one of its special writers for reply. Here is a sample:

"Please inform me if pure honey will turn to sugar. I have been told it does. If so, what can I do to get it back to a liquid?"

"L. H."

Our readers will enjoy the indication of the quantity of information on the characteristics of honey possessed by the one who answered the question, when they read this:

"Pure honey should last for years without candying if kept in a close jar or bottle. Nothing will bring it back to a liquid state after it has candied, unless you adulterate it with water and boil it."

Think of mixing water with granulated honey, and then boiling it, in order to re-liquefy it! What a big free advertisement that is of the amount of ignorance concerning honey the one answering has in storage. How much better it would have been to have quoted from Dr. Miller's large stock of "I don't know's."

Well, here is another that is pretty good:

"Do you agree with Dr. Kellogg, of Battle Creek, in his statement that honey should be partaken of very sparingly and as a relish only, for the reason that the bee injects a small quantity of poison into each cell just before capping the same for the purpose of preserving the honey? I believe this poison is called formic acid."

And this is the answer given to the foregoing question:

"The idea is novel to me—and startling. However opinions may vary as to the cause, honey is certainly extremely unwholesome when eaten in large quantities. Some people can not eat it at all. I have supposed this to be in consequence of the clogging and congesting effect of the wax upon the alimentary organs. The suggestion of formic acid is an unpleasant complication."

Surely, it is a novel idea that the bee "injects a small quantity of poison into each cell just before capping" it.

And so it is extremely unwholesome to eat large quantities of honey? It might be just as unwholesome to take "large quantities" of water, or large doses of anything else that is good. But who eats honey like a hog eats corn or potatoes? It isn't necessary to make a whole meal of honey alone, any more than one would eat all butter or all pie at one meal. A person ought to use a little sense in eating, that is, if he has any.

Yes, we have seen people who couldn't eat honey. The trouble was, we found, they had been trying to eat glucose with a piece of honey-comb in it. As soon as they got hold of honey they were all right. Now, we can eat perhaps a half section of honey at one meal, if we feel like it, but that, of course, is almost bordering on the swinish idea, we must confess. Perhaps a quarter of a section of honey would be sufficient. But we never stop to count the cells and estimate how much bee-poison we are eating. That would be ridiculous.

When it comes to extracted honey, we like to have at every meal about two full teaspoonsful in a little side-dish. We like to

clean it all up at each meal. Then it "tastes like more." But if we were to be a little piggish, and try to put down a half-pound at one meal, we would likely not care for any more at the next meal, or for several days. A little and often we believe is a good practice when it comes to eating honey.

But to return to the poison the bees put in the honey. Dr. Kellogg ought to get a few bees and watch them inject the poison into each cell. Unless he *knows* such to be a fact, he should not give utterance to the idea. Some people are so easily influenced by what they read that they might be induced to deprive themselves of so luscious a viand as honey, and all because they had read somewhere that a certain doctor "said so." We have no doubt some people will actually stir some water with granulated honey, and then boil it, in order to ungranulate it.

But we wonder why the daily papers don't refer their bee and honey questions to people who are supposed to know something about such things. Dr. Miller and many other bee-keepers would gladly help to get the truth about bees and honey before the people.

**The Denver Convention** promises to be fully equal to the Chicago conventions of the National Association, and that is saying a good deal. Of course, there is a possibility of the Denver one being greater in many ways. We hope it will be such. The following has been received from Pres. Hutchinson:

### THE COMING CONVENTION AT DENVER.

Of course, we naturally expected, if the National convention went out to Denver, that those Western people would do the handsome thing, but the present indications are that they are going away ahead of anything that any of us have dreamed of. Some things have come to me in private letters, giving hints of what may be expected, but all of their plans are not yet sufficiently completed to be given to the public; however, I have a letter from Secretary Working, that I have permission to publish, and here it is:

DENVER, COLO., April 26, 1902.

Mr. W. Z. Hutchinson.—

Dear Sir:—We have put both feet into it! Yesterday and the day before our Executive Committee (Harris, Gill, Rauchfuss, and Working) made the preliminary arrangements for the big meeting in September. Following are the chief points decided upon:

The Colorado Association will meet on Tuesday morning, Sept. 2, and devote the day to business, and in the evening and the following days take part in the general sessions of the National Association. Our program committee will work with yours.

We will give a complimentary banquet to members of the National Association coming from other States than Colorado, and a "Seeing Denver" trolley ride to all the attractive places in the city to the same people. Our members, and those of your Association who have the good fortune to live in Colorado,

will have the pleasure of sharing in these pleasures for a fixed price—to be fixed later.

We will plan for special excursions at low rates to places of interest in various parts of the State.

We gave our committee on exhibits \$50, and the authority to beg a thousand, for the purpose of making a great exhibition.

We decided to "spread" ourselves in such a way as to make the visiting bee-keepers forever proud of having attended the Denver meeting, and those who don't come everlastingly ashamed of themselves. And we have persuaded the Mayor of the city, and the Governor of the State, to do their utmost to make the occasion memorable; and the men who hold the purse-strings of the city, are interested. Promises later. Then, too, the Secretary of the Denver Chamber of Commerce, who is past-master in such matters, has become an enthusiastic member of our banquet committee—a committee that is not too big to do things.

That ought to be enough to tell you now. You are to tell us when we may give the banquet. You are to name us three men, including yourself, who will respond briefly and *thankfully* to addresses of welcome by President Harris, Governor Orman, and Mayor Wright. As for the banquet, you are to prepare for it and nothing more—to be in good humor, in good appetite, and in large numbers.

As for our people? With the kind co-operation of the railroads, we'll bring them to Denver in crowds. There'll be as many of our folks as of yours, if you dare! And before we are done with you, you'll be ours and we'll be yours.

Scatter the news! Tell it in Gath and Askalon. We'll tell it wherever Denver papers circulate. Yours truly,

D. W. WORKING,  
Secretary Colorado State Association.

It is very evident to me that the man who misses the coming convention at Denver will miss the treat of his lifetime. I expect to see it outstrip its predecessors in every possible manner—and that is saying a great deal. But look at the conditions: In the heart of the great West, and for the *first time*, Bee-keepers of both high and low degree, all over the West, will flock to it. The local arrangements, upon which the success of a convention is so largely dependent, are in the hands of very capable men. The rates of the railroads will be low. It is at the right time of the year—before cold weather, and after the work and heat of the season are over. The sights to be seen in and around Denver are equal to any on earth. Go to Denver, meet the boys, have one grand holiday, and go home loaded with enthusiasm and new ideas—the two things upon which all successes have been built.

W. Z. HUTCHINSON, Pres.

Now, we submit that if the whole of the above doesn't sound about as windy as the windiest thing that ever came from this notorious "Windy City" (Chicago), we are no lover of honey. But if there are any who doubt the ability of those Denverites to carry out their big plans and schemes, the best way to see them fail (or succeed) is to go to the convention.

Just think of that banquet—with meat and other eatables soaring aloft in price! And the trolley ride! Yes, and the Governor and Mayor! And there's that hustling Secretary Working them all!

Well, it looks to us as if it is going to be a regular hallelujah time. We hope to be able to "take it all in" when the time comes. But our capacity may not be equal to it, even if we should be "Alkin" ever so hard to do so.

Let's all abscond to Denver, and swarm down on the bee brethren and sisters there in regular apiarian style.

Hurrah for Denver! And the convention!

## Weekly Budget.

**RED CLOVER QUEENS.**—The breeder who rears and mails the red clover queens we have been offering, writes us that he expects to be able to begin to mail our orders June 10 to June 15. If the weather is favorable, he intends to have all our present queen orders filled by July 1st.

A postal card will be mailed a day or two in advance of sending the queen, to each person entitled to receive a queen from us.

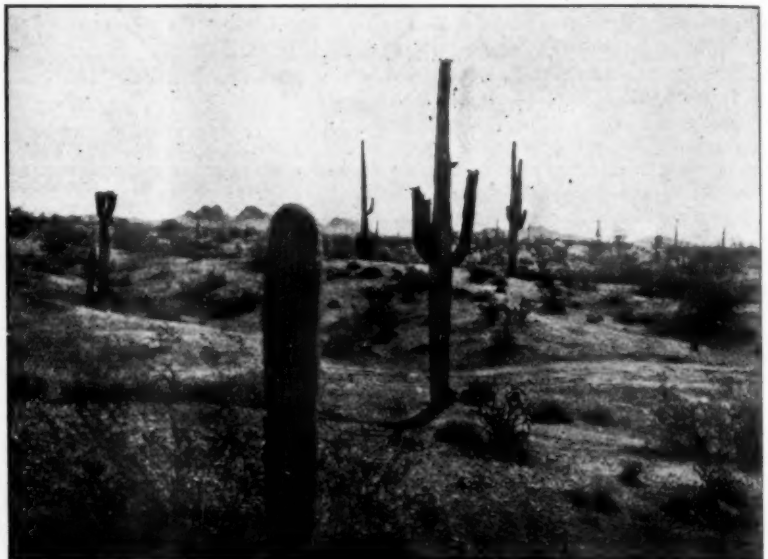
This will answer a number of readers who are getting somewhat anxious about the red clover queens they are to have.

**CACTI AND ALFALFA IN ARIZONA.**—Editor E. R. Root, of *Gleanings in Bee-Culture*, as will be remembered, made a trip through the South and West last year, and afterward described his journeys with pencil and picture. This week, through the courtesy of *Gleanings*,

around them when the photos were taken; but on account of their small size, of course they do not show), for all a bee has to do is dip down into one of the great, big cups and drink and drink to its fill. Then it flutters off, scarcely able to fly, while the others are gorging themselves only to go back home in a lazy, uncertain flight.

In the picture shown we have a general view of the whole forest of tree cacti. Over in the distance will be seen the mountains near which orange-growing, I was told, was possible. The broad expanse of country shown in the general view, is a perfect desert. Nothing will thrive there but these cacti; a peculiar kind of thistle, or what seemed to be such to me, and the ever-present sage-brush; and yet, on the other side of the road were beautiful market gardens and fields of alfalfa. Why this difference? you ask. The one can be irrigated, and the other can not; and I hope it never can, because this desert has some attraction just as Nature left it, and man should not be allowed to desecrate it.

This forest is probably the largest, both in the number of trees and in its general size, of any in the world. There seems to be no apparent effort to preserve these magnificent specimens. They are mutilated by curiosity-seekers tearing off a piece of the bark. Then, as if the work of civilized man was not enough, the Indians mutilate them with their bad aim, throwing stones to knock down the fruit that develops from the flowers, of which the bees are so fond. Indeed, there is no way



THE CÉLEBRATED FOREST OF GIANT CACTI ON THE ROAD LEADING FROM TEMPE TO PHOENIX, ARIZONA.

we give two of the illustrations that will be of interest to our readers, and the following part of the write-up which accompanied them:

We had planned to drive to Phoenix, and in doing so we had to pass by a cactus forest, perhaps the most remarkable in the world, on the main road leading from Tempe to Phoenix. As we came up alongside of these magnificent specimens of tree cacti, monarchs of their kind, I could not help thinking of my old boyhood days at school, when I was studying geography, how I used to look at the pictures of these giant cacti, or what seemed to me to be very funny trees then, and whether or not I should ever see the real thing. I asked Mr. Chambers to drive up near some of them while I, with my little pocket kodak, would take in a more permanent reminder of them, and here are some of the "shots."

On the top of these cacti will be seen small objects. They are nothing more nor less than beautiful blossoms that yield copiously a rich, thick nectar. Quite a little swarm of bees will hover around them (they were thick

by which this fruit can be gotten out by pelting it down. Taking it all in all, it seems too bad that the general government is not taking more active measures to preserve such magnificent specimens of cacti—specimens that take years to grow, and that landscape gardeners in the Eastern cities would pay thousands of dollars for if they could only cultivate them.

Speaking about the fruit of the tree, cactus reminds me that no one but an Indian can eat it. It affects white men very seriously, and some have been known to die from it; for it has a beautiful flavor, and therein lies the danger. Before civilization had encroached on either side of this magnificent forest of cacti, the Indians were in the habit of getting water from them. There is a trick about it that they alone understand; and although the water, I am told, is somewhat brackish, yet to one almost dying of thirst, I suppose it has all the freshness of the delightful cool springs that we knew in our childhood days.

After I had snapped the kodak right and left, I got into the buggy again; but as I did

(Continued on page 336.)



## Convention Proceedings.

### The Chicago Convention.

#### Report of the Semi-Annual Convention of the Chicago Bee-Keepers' Association, Held Dec. 5, 1901.

BY A SHORTHAND REPORTER.

(Continued from page 309.)

#### HIVE BOTTOM-BOARDS.

"How many are satisfied with the Danz. bottom-board?"  
Five voted favorably.

"How many are not satisfied with it?"

About the same number voted unfavorably.

Mr. Swift—Why not?

Dr. Miller—Because I do not think it is as good as the Miller bottom-board, after which it patterns. The Danz. is simply an imitation, and it isn't as solid. The original Miller bottom-board was made to be reversible, but I think it is better not to be reversible. In the first place, I think the Danz. is not strong enough. I would rather have it made of good, strong lumber. In the second place, I would rather have it made not to reverse. Another point, the Danz. is not deep enough. It is  $\frac{1}{2}$  and  $\frac{3}{4}$ . I want it two inches one side and nothing on the other side; and I want that depth of two inches to be filled up in the summer-time with a false bottom thrust in, and I can pull it out again with a great deal less labor than I can reverse it: so that I much prefer the bottom-board to stay with the hive winter and summer, in the same way, and when I want a deep bottom I pull it out.

Mr. Horstmann—My objection is like Dr. Miller's. His idea of having the big entrance would be all right for any one wintering the bees inside, unless he has some advantage in it with the bees during the honey-flow; but otherwise I think the common bottom-board, the same as he uses, the every day bottom-board, is the best.

Dr. Miller—Did I understand Mr. Horsemann to say that there is no advantage in the deep bottom-board?

Mr. Horstmann—The way I winter my bees in the cellar I raise the hives up and put a lath across the front and rear; that gives that width all around the hives. There is no possibility of a mouse getting into the repository, and it is usually warm enough; that is, the bees are warm enough to get at them if there is a hole gnawed through. I don't see the advantage of the big entrance, because I think the rats or mice will get in and have a good time, because the repository is apt to get cold as well as the hive, unless underground, and by and by, having them higher, unless there is some kind of a guard over it, I think it is a disadvantage.

Dr. Miller—There is no law against having a guard at that entrance, and that's just what I want. I want that two inches under the hive in the winter-time more than any other time. I need it more for the cellar than any other place, because then I don't need to separate it from the bottom-board. The bottom-board is fastened to the hive with staples, and when it comes time to take the bees into the cellar the false bottom is taken out, and there is a deep place for the bees to fall down in, and much more easy for you to clean out a space two inches deep than one one-half inch or one inch deep. And when the hives are taken into the cellar a piece of wire-cloth, three meshes to the inch, can be put at the front and there is no possibility of any rat or mouse getting in there then. It is much less work than raising by a lath or anything else. I follow that because it saves me all the labor. All in the world I have to do is to take out that false bottom and put in the wire cloth at the entrance, then it is ready for the whole winter.

Mr. Horstmann—I believe I will have to take it back. I believe Dr. Miller's method is the best, since he has explained it.

Mr. Mooney—Is that a reversible bottom-board?

Dr. Miller—As made in the first place it would be a reversible bottom-board, because in the first place I used it with old hives that had an entrance cut in the hive in front, and they stood on the flat bottom, but with the dovetailed it wouldn't work unless I nailed strips around; but I wouldn't have it to reverse, for the reason I would rather have the deep space there summer and winter.

Mr. Blunk—How far back will that extend?

Dr. Miller—Within one-half inch of the back of the hive—enough so that the bees will not glue it to the hive.

Mr. Mooney—Is that false-bottom supposed to be drawn out any time in the winter to take out any dead bees that may lie there, or is it substantially stationary?

Dr. Miller—It is made of thin material—a shallow box with one end opened—and when I first made it I intended to have it put in.

Mr. Mooney—As a draw?

Dr. Miller—Yes; but I concluded afterwards it was less trouble to draw it out and scrape. I believe I would rather have it taken out entirely.

#### COMB HONEY SAID TO BE BOGUS.

Pres. York—Prof. Eaton has with him a sample of comb honey from Springfield, Ill., which he has analyzed, and I would like him to explain it.

Prof. Eaton—The public in general have rather queer ideas of the adulteration of food products, and I don't know that there is any one product that they have more misleading ideas about than the adulteration of, and the price of, the pure article of honey. A lady came to me with a sample of honey which was granulated. It was reported that it looked as if it was adulterated. It was rather white in appearance; being solid she was sure that it must be adulterated. I had hard work to make her understand that, if anything, the granulation was a sign of purity rather than of adulteration. Of course, all granulated honey is not pure, but glucose does not granulate. A great many people have the idea that honey must be adulterated if it solidifies, and the newspapers have lately given the public the idea that all white comb honey must be adulterated. You know that is a fallacy. That false statement has brought us a number of samples. This sample is vouched for as being artificial by one of the State officials of Springfield, and consequently, I made a more than usually careful examination of it, as it was sent up to me with almost an affidavit that it was manufactured, comb and all. I telephoned for Mr. York and had him examine the honey. I knew he was an expert along that line, and he said it showed every appearance of being manufactured by the bees. I have examined quite a number of samples of comb honey, but I have never yet found a sample in which I did not have every evidence to lead me to believe that it was made at least in part by the honey-bee. This sample is granulated in part and is quite white, but under the microscope I find evidence of pollen, which of course indicates its natural origin; and you will notice many other indications which would lead one to believe that it is made entirely or partly by the honey-bee. It apparently has comb foundation in it, which I suppose a great deal of the honey put on the market nowadays has. I examined the honey extracted from it, and find it to be pure honey; the comb has also been examined, and up to the present time I have found nothing in the examination of the comb that would lead me to believe that it is anything else but pure beeswax. There is one little anomaly in the composition. It doesn't have the same composition as some beeswax.

Mr. Dadant—Was the comb cut, or open, or sealed?

Prof. Eaton—Just as it is now. It came as you see it here, with something on the top and bottom.

Dr. Miller—The capping is there now.

Prof. Eaton—Knowing both the honey in the inside to be pure honey, and the comb to be what I believe is pure beeswax (although I have not definitely decided that yet), and as I find evidences of pollen, I cannot help but conclude that that sample is pure honey, in which conclusion I am aided by Mr. York, who says that it has every external evidence of being pure honey. If any of you can see anything to the contrary from the examination of the sample I wish you would tell me. I don't want to make a mistake.

Mr. Dunn—It was sent as a bogus article?

Prof. Eaton—Yes, sir. The statement was made that there is a lot of adulterated comb honey sold at Springfield.

Mr. Purple—In that sample, what percent of foreign substance did you find? (Referring to a sample of adulterated extracted honey.)

Prof. Eaton—I wouldn't like to state the exact amount of adulteration of any sample of honey. I don't know the composition of the original honey, nor the glucose, because they vary. As Mr. Dadant says, every bee manufactures a different product. If I knew the composition of the original honey and glucose in a given mixture, I could tell the exact proportions.

Mr. Dadant—I think that I must have said that the different blossoms give different results; because I don't think that the bees would make very much difference in the result.

Prof. Eaton—Perhaps that was what you intended, and

said. At any rate, I think it is true, where you have individual bees working, the bee will work on different flowers and perhaps create a different flavor.

Mr. Dadant—If it was what I said in regard to leaves in the woods, what I meant to say was this: That in a section of honey the cells are not all filled up—you will find an empty cell here, two or three there, one over here; then the undulation of the comb. There is another one here, and there are no two alike. I didn't mean to say that the bees made it different; I meant to say that they built it as the leaves of the trees grow differently. I don't care if you take combs or sections of honey, put them side by side, the formation is entirely different. If man—granted that he could, for the sake of argument—build that comb, make the honey and seal it, whenever he sealed them over he would seal them all alike, unless he had two or three, or half a dozen, samples; but take a carload, and one section is just as much unlike the other as two trees. I am conceding the possibility of sealing combs. Prof. Eaton, excuse me for interrupting you so long. You can use the same argument as we do. Grant it that people say that honey is manufactured and put in the comb and sealed. They stated or claimed that the chemist said that the genuine bees' honey has a brown coloring around the cells, and that glucose honey is perfectly white. Take three out of half a dozen sections, you can show him they are not alike—one empty cell here, and there, and that they are never in the same places. How is a human going to begin to do that? You make artificial leaves—you know when they are artificial. Anybody can tell an artificial leaf from a natural leaf. Take all the leaves in one timber, and you can't find two alike.

Prof. Eaton—I accept your correction. I think you can apply the same reasoning to the honey itself. I say the grade, the quality of glucose and cane sugar, would differ; but the saliva of the bee, I take it to be about the same, and that's all she puts into it.

Mr. Dunn—Will glucose granulate?

Prof. Eaton—Not commercial glucose.

Mr. Dunn—Has that been in a cold place? (Referring to the piece of comb honey.)

Prof. Eaton—No, sir.

Dr. Miller—Is there grape-sugar in honey?

Prof. Eaton—There is grape-sugar. There is dextrose (grape-sugar) and levulose forming inert sugar. The commercial glucose contains dextrose. There is dextrin and dextrose in honey but no commercial glucose in honey, and there is not, in a chemical sense, any glucose in honey. Glucose refers to a group of sugars in a chemical sense. It does not refer to any one product.

Dr. Miller—I have watched with exceeding interest the very careful manner of the chemist in making his statements. It occurs to me that if all the statements that go from the Pure Food Commission to the public are made as carefully we bee-keepers will not suffer.

#### INJURIOUS NEWSPAPER STATEMENTS.

"What can we do to counteract the injurious statements in the newspapers concerning honey?"

Mr. Dunn—I move you, sir, that in view of the statements that have appeared in the Chicago Tribune, it is the duty of this body to set that matter straight. We represent the honey-men of the United States, and inasmuch as that statement has gone forth, it behooves us to answer it on behalf of this organization. I move that Dr. Miller, Pres. York, and Mr. Dadant, be appointed a committee to reply to that article in the Tribune, because they are the best competent to do it.

The motion was seconded and carried.

Prof. Eaton—One other thing I think you can do, or at least I will try to do it for you, and that is, to have incorporated in the report of the State Food Commission, a statement similar to what you gentlemen have said in my hearing here, that it is impossible to adulterate comb honey, and quote the fact of the reward for any adulterated comb honey found, and make the statement that there never has been a sample of adulterated comb honey found.

Mr. Moore—One of the reporters here suggests that this motion in regard to the article in the Tribune should say "the newspapers," whereas, if we mention the Tribune, it will not be taken any notice of by the other papers.

Mr. Dunn—I believe in taking the bull by the horns. We have a right here, as an organization, as well as ordinary common-sense individuals, to put the blame where it belongs. Why blame the Chicago press? If they refuse to publish the resolutions of our meeting—

Mr. Dadant—Mr. Dunn is right. We as bee-keepers meet, and they say these lies about us and we stand and say nothing, and that means they are true. They can say these folks met

and passed a resolution as to that. Here is a cartoon showing me putting the honey into the cells!

Pres. York—Yes, that's you. The man in the picture has whiskers, and so have you. [Laughter.]

Mr. Dadant—He is right, let us protest.

Dr. Miller—I don't know whether we are all understanding this thing alike. Now, if one paper makes a false accusation, that paper ought to make a retraction. The next question is, is it not desirable—

Mr. Dunn—You bet they will all take it.

Mr. Miller—Then let us go before all of them.

Mr. Moore—This reporter suggested merely a technicality. If we mention the Tribune the other papers won't pay any attention to it. But if it is stated "in the newspapers," then the City Press Association puts it in, and sends it to all the papers and they report it.

Mr. Dunn—The Tribune can very well say that they were misinformed. We are going to state positive facts here. We are going to challenge the statement that has been made.

Mr. Moore—This reporter represents every paper in Chicago—his report will be sent broadcast. If we refer to a particular paper, there is no attention paid to it. Substitute in place of Tribune, "in Chicago papers."

Mr. Dunn—These gentlemen have common-sense; they won't insult any one.

Dr. Miller—Allow me to remark, that is capable of two interpretations. One is, they must answer in the Tribune the article in it. It is the article in the Tribune that is wanted to be answered. I don't know what I can do with the other two stubborn heads, but I suppose the committee will do what might be best for the bee-keepers!

Pres. York—We have a pure food show at the Coliseum, and one of the circulars to be distributed at that show has on it the following:

"A REWARD OF \$1,000

for the discovery and presentation of A SINGLE POUND of manufactured comb honey has been standing as an offer for about 20 years, and is still untaken. Why? Simply because there is no such thing as manufactured comb honey, and there never was a pound of comb honey that the bees didn't store themselves.

"A U. S. Government chemist started the story, or lie, about this matter, and when pressed for a reason for his libelous statement, said he did it as a scientific pleasantry. And there are thousands of people who believe that lie about comb honey being manufactured. He said the comb was made of paraffine and then filled with glucose, sealing the cells afterward with a hot iron, or by some equally impossible manner.

"What a pity that so honest and honorable an industry as honey-production should have to suffer so greatly, and so unjustly, just because of the foolish utterance of an otherwise sensible man. Nothing that he can ever say or do toward undoing the awful wrong he did to bee-keeping will atone for the mischief his first statement did. It doesn't pay to try to be funny, particularly when one must tell a downright lie in order to amuse."

The convention then adjourned until 7 o'clock p. m.

(To be continued.)

## Contributed Articles.

### Experiments in Rendering Comb into Wax.

BY C. DAVENPORT.

**D**URING the last 8 or 9 years I have used quite a number of divisible brood-chamber box-hives. But, for reasons I will not now take space to explain, I decided last season to quit using this style of box-hive, or at least such large number of them. This decision gave me a large amount of combs to render by some means into wax. I also overhauled the brood-chambers of about 150 colonies in frame hives and cut out all the drone and old, crooked combs and replaced the same with foundation. The old comb I, of course, also wished to convert into as much wax as possible. Now all of this comb is not rendered into wax yet, and some of it never will be, for the moth-worms "got away" with quite an amount of it last season.

I wish to say, before going farther, that I do not believe any man, living or dead, ever did more experimenting in regard to rendering wax than I have, or spent more money for different machines and appliances to be used in this work. I do not say this because I consider there is any credit or honor about the matter; far from it, for all the wax there



was in the large amount of refuse comb I had would be worth but a very small part of the money I have paid out, to say nothing about the time and work. With this, as with many other things in regard to our pursuit, an irresistible impulse has seemed to draw and lure me on.

Previously I had rendered comb into wax by the kettle-and-sack plan, but having heard the Ferris steam wax-press very highly spoken of, I secured one of the latest improved. I next made a steam machine, or rather, had one made, on something of the same plan as the Ferris; it was made very strong, and so constructed that the refuse could be subjected to enormous pressure under boiling water; the baskets were long and narrow, and there were two powerful screws, one at each end of the basket. This machine cost me \$21, and I sold it for \$4.50.

I next had a machine made on a different principle; with this one the wax was rendered with boiling water, and the refuse or slumgum subjected to great pressure under boiling water. I will briefly describe how this machine was made:

It was about the shape, only a trifle larger, of a common, No. 9 wash-boiler. This outer part was made from heavy galvanized iron to fit the inside of this, and leave a space of about 2 inches. Between the two was a basket in which the combs were to be placed, this basket also being held up from the bottom about two inches by means of a heavy, iron spider, which was riveted and soldered to the bottom and sides of the boiler. The method of using this machine was to set it over a fire, put in three or four pails of water, and, as soon as it began to boil, put in as much old comb as the basket would hold. After it had boiled a short time a follower that just fits the inside of the basket was placed on and pressed down by means of a powerful screw at each end. These screws were attached on something of the same plan as those on the Ferris machine, but instead of being small ones, they were made from two medium-sized jack-screws. After the follower had been pressed down the wax would of course rise to the top of the water and was dipped off. This machine cost me \$29.00, and I sold it for \$7.00. I regret now that I did not keep this machine, for it may be that it is as good a machine as I will be able to devise.

The Root-German steam wax-press (one of which I purchased) could be made with but little change so that the refuse could be treated to pressure under boiling water, if desired; and the Root machine has a large and very powerful screw.

I next decided to make a machine on the Hatch-Gemmill principle, that is, boil the comb and press the refuse in a separate machine, for the inventor and one of the users of this style of press told what a large amount of wax could be secured from old comb when this method was practiced.

I sent to Chicago for a powerful screw, with which I at first used a 4-foot lever or handle to turn it, but this did not give power enough to press out all the wax from the slumgum. I next put on a 6-foot handle, but still the power was insufficient. I then put two men on the lever, and broke the screw. I do not believe it would be practical to apply power enough to secure all the wax from slumgum treated on this plan. I could take up a handful of the refuse that had been subjected to pressure by this method and squeeze out wax from it with my hand. I do not mean the wax would drip out of it, but there was wax enough in the refuse so that it could be plainly seen by squeezing a small quantity in one's hand. Of course, a good deal of wax can be secured from the refuse when treated to strong pressure in this way, but by no means all of it.

The readers, if there are any who have followed me this far, may wonder why I bought and made so many different machines. I was not fully satisfied with any of them, and it seemed as if I could improve or make the next one a success.

I also made three or four other machines; one of these treated the refuse to pressure by passing it through rollers. I had great hopes of this principle, but I have given it up as impracticable. Another principle that I have tried, though, leads me to believe that we have been making a mistake by endeavoring to secure all the wax from the refuse by great pressure, for with moderate pressure combined with agitation I secured a considerable amount of wax from refuse that had been subjected to great pressure under the Hatch-Gemmill process.

A far greater percent of wax can be pressed out of the slumgum if the pressure is done under boiling water, but contrary to what some seem to infer, all the good the water does in this case is to keep the refuse or slumgum boiling-

hot while the pressure lasts. After only moderate pressure has been applied no water can penetrate the mass.

When the refuse is dipped out into a separate press the wax, or at least a part of it, gets below the boiling-point at once, and the colder it gets the greater pressure it requires to press the wax from the slumgum. When it gets too cold I do not believe any force it would be practical or possible for us to use in this manner would separate the two.

In pressing refuse or slumgum, whether it has been rendered in water or by steam, or if it is pressed under water or in a separate press, a great deal more wax can be secured if the screw just fits down loose on the follower than can be had if the screw fits in a socket rigid so that the follower has to go down even. Especially is this so when a cloth is used to hold the refuse. Why this is so I am unable to explain. Of course, with any of the machines I have mentioned, what refuse comb I had could soon have been rendered into wax, but I kept the comb on hand because I wanted plenty of material with which to test my new or different machines. But this pastime or holiday work must soon cease, for a while at least, for the time draws near when my real work of producing comb honey will begin for the season. Southern Minnesota, April 7.



### Tongue Length and Glossometer—Co-operation.

BY PROF. A. J. COOK.

I WAS surprised at our good friend Hasty's suggestion of criticism of my statement, that the tongue length of bees as ascertained with the glossometer must agree with the measured length as indicated by the microscope. Why, bless your heart, Mr. Hasty, both tell the truth, and truth never wars or quarrels with truth. The old-time hog had an infinite nose. He was a rooter. With such a hog a plowed meadow only required propinquity. The hog present, and the meadow must be rooted.

The microscope told of the long Syrian-bee tongues—told that all had long tongues, or that their tongues were surprisingly uniform, and all of great relative length. The same instrument spoke of equal uniformity and the same relative brevity of the tongues of black bees.

Mr. Hasty, all bee-keepers know that all bees will push hard for nectar. If the glossometer is put into the hive they will reach to the utmost for the coveted sweet. The Syrians having the longest tongues, they must clean the glass farther than the equally eager black bees. If I had said they must gather more or whiter honey, it would be different. They usually will gather more because of their longer tongues, as they can reach the nectar in flower-tubes which is inaccessible to bees with shorter tongues. They will also be able to reach deeper into long, tubular flowers, and thus get more. They might have other characteristics that would prove a greater hindrance than would be the advantage gained in the longer tongues, when, of course, they would really secure less nectar. In many cases, too, as in the case of such flowers as linden, sage and figwort, the honey is so exposed, and so easy of access, that any tongues can reach it in its entirety; and here the short tongue would serve as well as the long.

We cannot have bees with too long tongues, but with these we also must have in the perfect bee all the other advantages, like early habits, maximum activity, eagerness to defend the hive, etc.

In a letter from Prof. Gillette, he objects to my method of obtaining the tongues. I cut off the heads of the bees, and then dissect out the tongues. Prof. Gillette threw the bees into hot water. His objection to my method is that the tongue will move. Of course we must wait until the muscles die, which requires many hours, often a full day. I have known a headless wasp to inflict a painful sting more than 12 hours after it had lost its head. Of course the muscles were not all dead yet, and the sting will be thrust out as long as the muscles are alive. Might not the hot water set the muscles? If we stretch the tongue by pressure on the mentum as soon as the muscles are dead and inactive, and before regor mortis has set in, I believe we have the conditions best suited to give the most correct results. I have reason to think so from the uniformity of results in the measurements of bees from the same colony.

#### CO-OPERATION AMONG HONEY-PRODUCERS.

We have great reason to hope from the temper and spirit of our late and last convention, that we should very soon have a honey exchange that would rival in excellence and advantage to its members the Citrus Fruit Exchange of

Southern California. That organization saved the citrus industry. I now markets 60 percent of the citrus fruits, and with the present rate of growth it will soon handle nearly or quite all. The great advantages arising from buying supplies cheaper; packing better, cheaper and more uniformly; distributing more wisely in the market; developing more and better markets; of keeping informed most thoroughly as to the state of the markets, throughout the entire country; and of keeping all the profits to the grower, are simply stupendous. It is co-operation on a large scale, and is blessed in performance.

The bee-keepers desire to enter an exchange, but at the same time wish to keep the right to sell their own honey if they will so to do. Of course no such exchange could live. It must know its supplies as to quantity, quality and whereabouts, else it cannot command the market. In case any bee-keeper learns of a good market at a high price the exchange will be glad to know of it, and give the bee-keepers the advantage of it. But, of course, the organization must handle the honey, and, unless this is permitted, the organization would be like a rope of sand.

There are two things that stand in the way of the rapid realization of such organizations. People are slow to trust them, and quite as slow to pay salaries that will secure the ablest management. A bee-keeper or fruit-grower who works hard the entire year, and counts his income possibly with three figures, finds it hard to see why the manager of an exchange should receive a four-figured income, with the fourth figure probably a large one. It is simply this: In doing business, as does the Citrus Fruit Exchange, that reaches up into the millions, a shrewd business sense will often, in a single deal, save many times the salary of the manager. He must be far-sighted, alert, cautious, experienced. The railroads, and all large, successful corporations, are all the time looking for such men; once found, and they will have and keep them at any price. The exchange must be the same.

The Southern California Citrus Fruit Exchange pays its manager \$8,000. I am free to say that she is wise, and would far better add to this large sum, if such addition were necessary to keep him. This organization does business away up in the millions of dollars, and yet, for several years, has met no losses at all, in the way of bad sales; does the business for 3 percent of sales; has the full confidence of the trade; and is developing a constantly larger and better market. All our rural industries must and will wheel into line. Let us all urge that it be soon.

Los Angeles Co., Calif.



### Something on Honey-Flavors, Marketing, Etc.

BY THOS. CHANTRY.

IN reading the report of the Chicago convention, on page 213, I could hardly keep my seat. I wanted to add a little of my own experience to the question, "What is the best honey?" I see that the bee-keepers there like sweet clover, principally, but want a little aster or goldenrod or something in with it to modify it a little. How many have tried, as I have for years, to carry a glass or sample of 5 or 6 different kinds around from house to house, and exhibit at fairs, and always insist on everybody, who likes honey at all, to sample all kinds with pocket-knife, table-fork, or toothpicks, and note how different people are in regard to taste, even among members of the same household?

Most think honey is honey, and the notable difference in taste between sweet clover, alfalfa, white clover, basswood, goldenrod and buckwheat, for instance, will give rise to many questions of how they can be gotten separately, and give good opportunity to explain the use of the extractor, and why extracted honey can be profitably produced at a lower price than comb honey; and, in time, you will learn to tell when asked "Which is the best honey?" (before tasting the samples). They are all good honeys, and as to food value one is as good as the other, but I can't tell by looking at you which you like best.

Now, since you like your sweet clover a little mixed with some other, I would say if you have pure basswood honey put in  $\frac{1}{2}$  alfalfa, and people who like basswood honey will like it better; also to your pure buckwheat put in  $\frac{2}{3}$  alfalfa and it is so mild it is not noticeable to the taste, only makes the buckwheat flavor less rank, and improves the whole; and you will be surprised to see how many will like it better than any other and order it. Also California sage should be diluted with alfalfa. I say alfalfa because it is so mild and of such good body.

Dr. Miller expresses the idea about too much flavor, and I find it pays to teach people the difference, and label each kind always true to name.

One store sold over 500 Mason jars of honey this season, nearly all candied, because it is cleaner to handle; clerks like to handle it better, and people can take it home safer and eat it candied, or melt it, as they please. The result is all because I took special pains to give every man, woman, and child in the small town, who was fond of honey, a taste of the various flavors, and explained how we kept the various kinds separate, etc. I told them that I would put my honey in the store, always labeled true to name, advised them to remember which kind they like best, and, to call for it at the store. If they ever found I have deceived them, to take it back and get their money. So well has this experiment of thorough canvass succeeded that if I only had the time to go to every town in the United States and do likewise, I could use almost an unlimited supply. I have added two more towns to my list of thoroughly canvassed—educated somewhat in regard to honey. I gave them an opportunity to educate themselves about flavors, and already the stores are asking for more honey. One small town has used over 1,000 pounds, while two towns four times its size, on either side, have used 120 pounds, all because of a little time in educating people as to what extracted honey is, how much difference in flower-flavor, how to melt when candied, etc.

Now, in mixing various honeys, heat from 130 to 160 degrees, stir thoroughly, let it stand an hour and skim what foam rises, then draw off into jars properly labeled true to name, and put in the store and let it candy when it may; the label will explain that.

When I say mixed-flavored honey, I don't mean adulterated with glucose or syrups—no, no, but mixed one flavor of pure bees' honey (perhaps of strong flavor) with another pure bees' honey of a milder flavor.

Naturally, we would generally get buckwheat honey with some of the last of clover or basswood, and then with some goldenrod, heartsease, or aster, but principally buckwheat; also sweet clover in our country here will get mixed more or less with other clovers, and shoestring, snowdrop, etc.

Oh, for a honey exchange that would see to it that our good honey was properly put on the market, in a standard but otherwise useful package, properly labeled true to name. One man cannot do it. The creamery men see to it that their fancy butter gets to the consumer in good order, and not mixed with oleo; then why shouldn't the bee-keepers do the same, and not throw it on the general market, and let it be mixed with glucose before reaching the consumer, and perhaps labeled "Red Top Clover Honey," or "California White Clover Honey," or, as I saw in Sioux City this winter, "King-Bee Honey?" Such stuff, along with poorly ripened, strongly flavored honey, tends to disgust the public with extracted honey. In fact, all my remarks refer to clear or extracted honey. Clay Co., S. D.



The "Old Reliable" seen through New and Unreliable Glasses.  
By E. E. HASTY, Sta. B Rural, Toledo, O.

#### HAVANA LITTLE GIRLS AND HONEY-DEW.

As for the nice frontispiece for April 10, I can't make very much connection between bees and the little girls of Havana having a procession in the street, teachers alongside—but I'm glad to see the little girls all the same. If it's true that without love the world wouldn't go round, it's still more true that without little girls, there wouldn't be any world to go round—and then the great big question whether honey-dew is ever actually dew couldn't be "argied." You see, I'm a little disposed to open the chest where we keep last century's chestnuts, because at my apiary I recently had a case where bees in such enormous numbers were at the dew on the grass and herbage that it hardly looked possible that water only was what they were after. Still, perhaps it was—each one getting a drink for herself, and then promenading and sunning herself awhile before going home.



## THE POST CHECK.

In other words, the Post check is a dollar bill (or other denomination) with room and lines to write on it. When it is once written on it is no good until redeemed, and therefore not desirable to steal in transit. But and if the thieves in making a haul take it along, and finally destroy it—well, I haven't found out yet where the remedy comes in. Nevertheless, let's have the Post check. Say, have a coupon on one end to be cut off, or not to be cut off, as the sender chooses, and to be payable after six months if the body of the note is not presented. Page 237.

## WINTERING BEES IN A FURNACE-ROOM.

Seemingly preposterous experiments with bees are quite apt to turn out all right. C. B. Howard contributes one by wintering bees in the furnace-room of his cellar. That experiment should be repeated; it may contain the germ of something valuable. I'll venture the guess that it will usually turn out well, so far as the bees are concerned, but that sometimes flying bees will be a nuisance to the one who tends the furnace. Page 238.

## WAX-WORMS ON BASSWOOD.

And now comes a man who sees wax-worms prey on the basswood and let the pine alone—just the opposite of the report sent in a bit ago. The man is Mr. A. Ziegler. So merrily we swing around the circles, and get more facts than we can find pigeon-holes for. Page 238.

## PERHAPS A JOKING MINISTER.

A. E. Taylor may not be such a bad minister, after all. He was joking; and presumably said what he did with the veridancy of a child. Didn't think (or never heard) what immense mischief has been done by just such jokes, and the statements not jokes which they give rise to. Neither did he realize how sore bee-folks are on that spot—nor what a lot of them feel ready to trade a kick for a joke. Page 243.

## SWEET CLOVER HAY.

I was decidedly surprised that the call for a man who had a whole load of sweet clover hay in his barn should so nearly fail of response—after all these years of agitation and publication in the matter. What shall we do about it? Vociferate a little louder, and tear the strips of our raiments a little longer, or give the whole thing up? Mr. Baldrige was able to certify some extensive use of it for hay in the South. They can cure it there—and are also in most distressing need of something to make hay of. I suspect the great hindrance in the North is that suitable hay-weather mostly does not come so soon as sweet clover needs cutting. Page 228.

## MR. AIKIN'S WAX-SEPARATOR.

In the cut of Aikin's wax-separator, on page 234, there is a funny source of error. We think we see two galvanized iron pails. Mentally estimating them at ten inches high, or such a matter, we see the device standing up as tall as a man's shoulders, and big in proportion. When we read it is seven inches high and two inches wide on the bottom, we are rather taken back.

Good style of straining. McIntyre, of California, was one early practitioner of the gravity method of straining, if I remember rightly.

## EXTRACTING WHEN THE WEATHER IS COLD.

To extract honey successfully 20 degrees below freezing would be quite a triumph, surely; but he didn't mean exactly that. He meant when the *weather* was that many degrees to the bad. The process of warming up can be helped along materially by bringing the combs into an ordinary room, which stands at 40 or 50, a day or two beforehand. Page 236.

## RIPENING CUBAN HONEY.

Rambler told us Cuban comb honey was ripe, but he did not tell us why Cuban extracted honey could not be well ripened, too. One would think that with an honest sun overhead, and an honest sun beneath, the feat would be possible. Page 236.

Please send us Names of Bee-Keepers who do not now get the American Bee Journal, and we will send them sample copies. Then you can very likely afterward get their subscriptions, for which work we offer valuable premiums in nearly every number of this journal. You can aid much by sending in the names and addresses when writing us on other matters.

## Questions and Answers.

CONDUCTED BY

DR. C. C. MILLER, Marengo, Ill.

(The Questions may be mailed to the Bee Journal office, or to Dr. Miller direct, when he will answer them here. Please do not ask the Doctor to send answers by mail.—EDITOR.)

## Increasing by Dividing.

I wish to increase my bees when the time comes, and I want to do it artificially. If I put a new hive on an old stand with starters, and queen clipped, with almost the entire swarm, and then put the old hive on top of the new one with the rear end in front, entrance closed, and put a tube at the rear end for the hatching bees to escape, how long must I leave the tube on? Should I put moisture or water in the old hive? How long should I wait before I give the old colony a ripe queen-cell? COLORADO.

ANSWER.—I have had no experience with the plan you mention, and I doubt the advisability of trying it. If, however, there are those who have tried the plan and approve it, I will gladly give them the floor to answer you. In late numbers you will find some plans for artificial increase that may suit you.

## Early Drone-Killing and No Swarming.

Why do some colonies make such cleaning out of the drones, and so early in the spring? I have 2 hives now that have a large quantity of dead and some live drones ejected. I had 10 colonies last year; the spring was late and cold, like this spring, and quite a number of colonies emptied their hives of drones, and I had but one new swarm. I got from the 9 colonies a little over 250 pounds of surplus honey last year, and it looks as if the bees have started to do the same thing this year. All the colonies are working well on fruit-blossoms now. Let me know the cause of early drone-killing, and no swarming. WASHINGTON.

ANSWER.—Bees may vote down drones at any time when stores appear to be getting scarce. They may also vote that they have no immediate use for drones when the old queen has been superseded and a new one has commenced laying, even if the superseding comes early.

## Honey, Not Increase, Wanted—Italianizing—Managing Swarms.

1. I have several colonies of bees in 2-story 8-frame dove-tailed hives. I wish to manage them for comb honey and no increase. Our main honey-flow is white clover, beginning about June 10. What plan would you advise?

2. My bees are blacks and hybrids. I wish to introduce pure Italians. At what time of the year would you introduce them? And would you get laying or untested queens?

3. Would it be better to buy queens reared in this latitude? And is there a liability of introducing "foul brood" with a queen?

4. Under all conditions would you give full sheets of comb foundation in frames and in sections, to a swarm? If not, what would be the exception? When would you add the super? ILLINOIS.

ANSWERS.—1. It is just possible that by allowing them to continue in the two stories (if by that you mean that there are two stories in the brood-chamber), there may be no swarming. One way is to have the queen clipped, destroy the queen when a swarm issues, and when the young queen pipes, a week or more later, destroy all queen-cells.

2. You can introduce queens almost any time, but the introduction is less risky when bees are gathering, and it is easier to get queens after the June flow begins. Untested queens are always supposed to be laying queens, only they have been laying so short a time that their worker progeny have not yet hatched out. If you want to be entirely sure of what you get, it will be well to get tested queens; but it will cost less to take some risk and get untested ones.

3. I don't know as it makes much difference about the latitude. No honest man would send you foul brood, but to

make matters safe you can kill all the escort bees without fear as to conveying the disease.

4. If I wanted to be very saving in outlay, I would give a swarm four or five frames with starters, and when these frames were filled out I would give the remaining frames filled with foundation. I do not think of any other condition except that of the necessity of economy that would make it desirable to do other than to give full frames of foundation to fill the whole hive. The super may be given to the swarm as soon as it is hived if a queen-excluder is used, otherwise there should be a delay of perhaps two days to avoid the danger of having the queen go up in the super.

### Introducing Queens.

If I take an Alley queen-trap and trap the first queen, can I introduce a new queen without using an introducing-cage, if I don't catch the swarm? WISCONSIN.

ANSWER.—If you have an Alley trap at the entrance, the queen will be caught in the trap and the swarm will return; and I suppose your idea then is to remove the queen that is in the trap and give another queen in its place. The chances are that the new queen will be killed. Even if caged, the plan would not be a success, unless you wish the bees to swarm with the new queen.

### Putting on Supers—Placing Hives.

1. My bees work from about 7 a.m. till the sun goes down when it is a nice day, and they have something on the hind legs as they go into the hive. Can you tell me what it is? It looks like honey.

2. When do you prefer to put on supers.

3. Will bees do as well to have their hives all in a row about 12 inches apart, or is it better to have them further? IOWA.

ANSWERS.—1. Bees never carry honey on their legs. Usually the load carried on their legs is pollen, but pollen does not look like honey. Sometimes propolis or bee-glue is carried on the bee's hind legs, and looks somewhat like very thick honey.

2. As soon as the first white-clover blossoms.

3. They are better not to be placed regularly quite so close together, but you can manage to have all right without occupying any more ground. Leave the hives with the odd numbers, 1, 3, 5, etc.; right where they are, and then move No. 2 close up to No. 1, No. 4 close to No. 3, No. 6 close to No. 5, and so on.

### Increase Wanted—Extracting Honey.

1. I put 9 colonies into the cellar to winter, one of them being a nucleus colony that I started about September 15. You remember I wrote you during the winter the particulars about this colony. I put them out April 5. Well, all of the 9 colonies are in good shape, as far as I can see, and I thought I would divide them instead of letting them swarm. I have 3 extra hives on hand. Do you think I would better divide, or let them swarm once? I want to increase, but not too fast.

2. Can I, or rather would it be practical to extract from the brood-chamber the frames of honey used during the winter or spring?

3. What is the best plan to arrange the hive for extracting? Should I use a double hive, or just the brood-chamber of one hive?

4. Is the Cowan extractor as good as any?

5. Would you advise me to get a 2-frame extractor? I intend to keep bees always, and want to keep 40 or 50 colonies, so you can judge from this. As I never saw an extractor at work, I do not know much or anything about it. NEBRASKA.

ANSWERS.—1. If you have not much experience in the matter, perhaps it will be as well to let each colony swarm once.

2. If warm enough, and if the honey is not granulated, it can be extracted. But it will almost surely be better to leave it in the brood-nest. You will find that up to the time of the beginning of the main honey-flow the bees will consume a large amount of honey, and if you extract all out of the brood-chamber you will compel the bees to fill up the space you have made vacant before they do anything in the super. It is not at all likely that there is any more honey in the brood-chamber now than there should be.

3. It is not considered a good plan to disturb the brood-

chamber at all by extracting the honey from any of the combs in it. Put a queen-excluder over the brood-chamber, and over this put a second story to contain the extracting-combs.

4. Yes, it is an excellent extractor.

5. Unless you expect to run above one or two hundred colonies, the 2-frame will be all right. Some say it is all right for 200 or more.

### Painting Hives—Foul Brood—Wax-Extractors.

1. Will it hurt bees to paint the hives they are in?

2. Is there any danger of getting foul brood by introducing queens bought of queen-breeders?

3. How can I make a good solar wax-extractor? VERMONT.

1. No, except that with ordinary paint there may be a little trouble in having their feet daubed with it while it is very fresh. It will help the matter to use a drier in the paint and to do the painting in the evening.

2. It is pretty generally agreed that a queen will not carry the disease, but the workers might if taken from a diseased colony. So it is safe to kill the escort. Answering your question on general principles, it might be said that the danger of getting foul brood through buying queens is very small; for an honest man would not sell queens if he had foul brood in his apiary, and the number who would be so dishonest as to send out the disease is probably very small.

3. That depends a good deal on what you mean by "a solar wax-extractor." You can put a pane of glass over a box, and have in the box a sheet of tin with small perforations, placing on this the scraps to be melted, with a receptacle underneath to catch the melted wax, and it will do a good bit of work. If you mean a solar wax-extractor as good as one you can buy, it will not pay you to undertake it, and it would not be worth while to give a description, for you can buy one cheaper than you can make it. If you want something still better than a solar wax-extractor, get a steam wax-press.

### Spraying with White Hellebore.

If gooseberries and currants are sprayed with white hellebore, will it do any harm? Will it kill the bees? OHIO.

ANSWER.—That depends upon when the spraying is done. When the plants are not in blossom, the spraying will do no harm. Spraying when the plants are in blossom will be a damage to the bees and also to the fruit crop.

### A Beginner's Questions.

1. Does the old queen come out with the first swarm? If so, how old is the virgin queen at that time?

2. How many days old is she before she makes her bridal trip?

3. Do they ever mate while swarming?

4. After the young queen hatches, how long will the two stay in the hive without swarming or killing one of them?

5. I hived a good swarm April 20. Will they be apt to swarm this year if I give them plenty of room? I gave them three frames of drawn comb and five with brood-foundation starters.

6. How soon shall I put on a super? SOUTHERN ILLINOIS.

ANSWERS.—1. The old queen comes out with the first swarms generally about the time the first queen-cell is sealed, or about a week before the young queen leaves her cell.

2. Somewhere from five to ten days old.

3. Sometimes.

4. The old queen leaves before the young one leaves her cell.

5. Likely not; but they may.

6. Just a little before the main flow begins. In your location it is likely white clover is the first thing from which surplus is stored, and you should put on the supers as soon as you see the first white-clover blossoms.

I am sorry you didn't ask the question, "Should I get a text-book?" Of course it might not do for me to answer the question you have not asked, but if you had asked a question of that kind I should have said that it would probably be big money in your pocket to pay \$5.00 for a text book, and then study it carefully.



# THE AMERICAN BEE JOURNAL

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A. Getaz, and others.

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- To prevent the adulteration of honey.
- To prosecute dishonest honey-dealers.

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## GENERAL ITEMS

### Encouraging Outlook for Honey.

All things considered, the outlook for a good honey-flow in Utah is encouraging this season. There is plenty of water for irrigation nearly all over the State.

There have been some winter losses in some localities, but, as a rule, the bees have wintered fairly well, and barring the danger of grasshoppers, in two or three places, good crops and a good honey-flow are confidently looked for. It is to be hoped that the tremendously heavy rains the past month may have rotted the eggs. Where there was a partial failure last year the principal cause was drouth and grasshoppers; these causes being wholly or partly removed, we know of no reason why our farmers and bee-keepers should not succeed this season.

Smelter-smoke is still the principal cause of trouble in Salt Lake County.

E. S. LOVEST.

Salt Lake Co., Utah, April 26.

### Hard Winter on Bees.

It was a very hard winter on bees around here, fully 75 percent having died. They were housed up two months without any flight. The prospects are good for a good crop of honey. All kinds of fruit are beginning to blossom, clover is looking fine, and we are having plenty of rain.

My bees were bringing in pollen in March, which I do not remember ever seeing before.

IRA D. HYDE.

Washtenaw Co., Mich., May 6.

### Never Wintered Better.

Bees never wintered better than they did the past winter. The hives are full of bees and brood, and if we can have plenty of rain I think the clover will come on all right, and we will have a good season.

We will hope for the best, and get the bees ready for the crop when it does come.

Grant Co., Wis., May 3. M. M. RICE.

### Rearing Long-Lived Worker-Bees.

A subscriber desires me to explain what is meant when I say, on page 302, "Next I found I could rear queens from my poorest queens that produce long-lived workers."

I mean when I say "poorest queens," that such queens are below the average in every respect, less prolific, and whose workers are short-lived so their colonies are always weak.

It is the manner in which the queens are reared that causes long or short lived workers. I was a long time studying how this was done. I have lost hundreds of dollars since 1868, in experimenting with bees, as to just how to rear queens whose workers are always long-lived. All queen-breeders know there is a great difference in queens and the longevity of their workers, but do not know why.

Lucas Co., Iowa. GEO. W. RIKER.

### Is it a New Bee-Disease?

I have 21 colonies of bees here, and all seem to be in good health but one. They have been dragging out dead and helpless bees for the last month, but the weather has been too cool and changeable to open the hives, so I left them alone until yesterday, when I concluded to take off the cover and look in, and on doing so I noticed a few of the affected bees at the top of the frames. I took out over one-half of the combs and found the queen, which appeared all right. The colony seemed quite strong with bees, and combs well filled with eggs and brood. There was no foul odor from the hive, and the brood in all stages looked healthy, so far as I could see, but it

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commenced raining before I had finished, so there were three or four frames in the hive that I did not take out.

The bees affected turn black from head to coupling, and the point of the tail end also black; in the last stages they are black all over, and look more like large-winged ants than like bees, having a slick, oiled appearance. They seem smaller, or more slender, than the healthy ones. They are Italians, the queen very yellow, and only one year old, being one that I reared myself last season.

There has not been any contagious disease among bees in this section that I know of. I would like to hear from some of the old professionals—Dr. Miller, Doolittle, or any one else who may have had bees affected like mine are.

I have just re-read the discussion on black brood at the Buffalo convention, but I can't find anything in that that covers my case. If this is something new to older heads than myself, I will watch the colony's progress a few weeks longer, and make another report.

I have kept bees here for seven years, and they have always seemed healthy.

S. A. WILSON.

Siskiyou Co., Calif., April 30.

[It would be well to keep close watch of the colony, also mail a sample of the bees to Wm. McEvoy, Woodburn, Ont., Canada, telling him about them, and getting his opinion. —EDITOR.]

#### Discouraging Spring.

For two days it looked as if spring was here. It was the coldest, windiest spring I can remember. I had a loss of 8 colonies out of 40 since I took them from the cellar. The cold, windy, sunshiny days dwindled them to nothing. Soft maple buds drop off by cold, and willow for the last few days for pollen makes a more hopeful prospect. But my bees were old ones.

It was so dry last summer that there was no brood after July. The white clover will be very scarce, and all other clovers the same.

N. A. KLICK.

Stephenson Co., Ill., May 2.

#### A Bridegroom at Buffalo.

The report of the Buffalo convention is just received in pamphlet form, and I assure you it is highly appreciated, being a handy reference-book, and a fine history of that memorable occasion. I suppose I appreciate it more as it was my first attendance, and I was then on my wedding-trip, and neglected the Pan-American to attend every session of the convention. Pretty good for a bridegroom, eh?

My bees are building up strong this spring, having wintered well, and although the spring is cold I expect them to be in fine condition for clover.

E. B. TYRRELL.

Genesee Co., Mich., May 1.

#### Another Bee-Sting Remedy.

On page 218, a bee-sting remedy is asked for. For single stings press firmly over the site of the puncture a coin, say a half-dollar, for five minutes. The pressure causes the absorption of the poison into the general circulation, and the local irritation is prevented. I often used this remedy when a boy, in the case of hornet or wasp stings.

GEO. WENTZ.

[We will have to try this the next time we are stung—if we can raise the half-dollar! If there are any banker bee-keepers, they can use twenty-dollar gold pieces, we suppose. —EDITOR.]

#### The Chaff Hive.

Some one asks, "How is it we do not hear much about chaff hives?" I use them (150), and have for 20 years. Many started with bees in common hives about the time I commenced, and have gone "where the woodbine twineth." Others I know have chaff hives and still have their bees. My loss this spring

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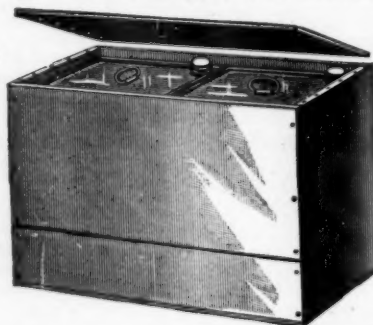
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We would suggest that those bee-keepers who did not produce enough honey for their home demand this year, just order some of the above, and sell it. And others, who want to earn some money, can get this honey and work up a demand for it almost anywhere.

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## An Italian Queen Free!



We would like to have our regular subscribers (who best know the value of the American Bee Journal) to work for us in getting NEW subscribers. We do not ask them to work for us for nothing, but wish to say that we will mail ONE FINE UNTESTED ITALIAN QUEEN for sending us ONE NEW subscriber for a year, with \$1.00; or 2 Queens for sending 2 new subscribers, etc. Remember, this offer is made only to those who are now getting the Bee Journal regularly, and whose subscriptions are fully paid up.

In case you cannot secure the new subscribers, we will mail one of these Queens for 75 cts., or 3 or more at 70 cts. each; or the Bee Journal one year and a Queen for \$1.50. We expect to be able to send them almost by return mail.

(Please do not get these offers mixed up with our Red Clover Queen offers on another page.)

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The Nuclei are 3-frame Langstroth, in light shipping-boxes. Prices: 1 for \$3.00; 5 or more at \$2.75 each.

All are f.o.b. shipping-point, and will be sent by express, a postal card notice being mailed to each purchaser a day or two before shipping the bees.

GEORGE W. YORK & CO.,

144 & 146 Erie St., - CHICAGO, ILL.

was one queenless colony. I never have had a bad loss in winter but once (30 percent), and that was caused by late feeding of sugar syrup. To-day my bees average six frames of brood, and but few days that they could get out for pollen. J. C. STEWART.

Nodaway Co., Mo., May 3.

## Swarms All Around.

There are swarms of bees in every direction all over the valley. One boy across the street has picked up 15 swarms the past week. Mr. Sutton has picked up 6 within 10 days. My youngest boy, 12 years old, went down First street two miles, on Saturday, and came home with one swarm in a box and one in a grain-sack. Three swarms went over my house to-day. DR. E. GALLUP.

Orange Co., Calif., April 30.



## Pickled Brood—Nature and Character.

1. Has pickled brood absolutely no perceptible odor?

2. Will there be absolutely no rosy matter adhere to a toothpick when withdrawn from a dead larva having had the disease known as pickled brood?

3. Will a comb that has been rotten with foul brood during June become filled with healthy larvae afterward? Or will a foul-brood cell produce healthy larvae at times and diseased ones at other times?

R. C. HUGENTOBLE.

[1. Pickled brood has no odor like foul brood, nor has it a foul smell—in fact, no smell at all, as a general thing. If any odor is present at all it is slightly acid, or sour, and hence the name, pickled brood. In the advanced stages there will be a white mold over the surface of the comb; and this, in fact, is the best evidence that it is pickled brood.

2. Pickled brood is slightly rosy at times, but it never draws or ropes out more than an eighth of an inch, and, unlike foul brood, does not have a stringy character.

3. Cells that have contained foul brood may be cleaned out by the bees, and afterward healthy brood be reared in them; but the probabilities are that those same cells containing the spores of the disease will again give the disease to our healthy larvae. Yes, cells that have been foul-broody at one time may be apparently healthy at another.—Ed.]

—Gleanings in Bee-Culture.

## Robbing—An Unusual Occurrence.

I had a case of robbing after extracting this week. I covered the hive being robbed with a cloth. After awhile bees belonging to that hive and the robbing bees united and clustered on the cloth. In the course of two hours the cluster dispersed and entered a weak nucleus containing a laying, clipped queen. The bees balled the queen for awhile, but finally released her and settled to work like a regular swarm, and are doing well. What will bees do next?—J. F. M., in Australasian Bee-Keeper.

## Giving Cellared Bees a Flight.

One of the things fully settled long ago was that it is a bad thing to put bees out of cellar for a flight and then return them. Having tasted the pleasure of the free air they would not again be content to be imprisoned. Now, Mr. Editor, you've gone and unsettled the whole business again. Please tell us minutely as to the final result. Also tell us when you took out, returned, and took out for good. There have been times when I felt I'd like to give the bees a flight, and then return them to the cellar; but I had too strong respect for traditions.—[I think we have proven, to our own satisfaction at least,

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Catalog mailed free—send for same. The Standard Honey-Jars, Langstroth Hives, etc., at lowest prices.

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GEORGE W. YORK & CO.,  
144 & 146 Erie Street. CHICAGO, ILL.

## COMB FOUNDATION ADVANCED 3 CENTS A POUND.

Owing to the increased price of beeswax, until further notice, dealers handling the A. I. Root Company's goods are compelled to raise the price of Comb Foundation 3 cents per pound above the prices found in their price-lists and catalogs. Please take notice.—Adv.

that the old idea that indoor-wintered bees should not be given a flight on some warm day in midwinter, is not good practice for Medina. In a normal state of health bees are compelled to void their excreta at certain regular intervals. We know that they do retain them during the winter; and we know that, just as soon as they are set out, the first thing they do is to spot everything in the neighborhood. This goes to show that Nature has been pent up for a long time, and seeks relief. To give the bees a cleansing flight during winter is not only rational but humane. We manage to keep our bees quiet till about the latter part of March. Then we set them out and let them have a cleansing flight, and put them back again, and then they are perfectly contented—no doubt about that.—[EDITOR.]—Stray Straw in Gleanings in Bee-Culture.

### Stimulative Feeding.

I have been, and am still, experimenting with stimulating food for bees, but I am already satisfied that here, at least, feeding in the spring is done at a loss. Cane-sugar syrup has to be "inverted" by the bees, and that process calls for an expenditure of vitality that old bees, after a winter's confinement, can ill meet. Under normal conditions—during the natural flow of nectar—there are an abundance of young bees to do such work, and it is believed that they do much, if not the greater part, of it. But in the early spring, when stimulative feeding must be done if to be of any use, there are but very few young bees, and so the labor falls upon the old ones. If we could afford to feed honey, or honey and water, at such times, would not such evils be avoided? It may be asked. Not entirely. I can not discover that colonies stimulated with honey and water are in one whit better condition for the harvest than are colonies left entirely alone, but having plenty of honey (and pollen) left from their winter supply. On the contrary, even with such skill as I have acquired in the past 20 and odd years, spring-stimulated colonies are more often behind the others than ahead of them. Other things being equal, I believe bees winter better when they have a super-

## —ITALIAN— Bees and Queens!



Having been 28 years rearing Queens for the trade, on the best known plans, will continue to rear the best during 1902.

#### PRICES:

1 Untested Queen ..... \$1.00  
1 Tested Queen ..... 1.35  
1 Select Tested Queen ... 1.50  
1 Breeder ..... 2.50  
1-Comb Nucleus, no queen 1.40

Write for catalog, giving prices of Comb Foundation and prices of Queens by half doz. and doz. lots.

J. L. STRONG, Clarinda, Page Co., Iowa.

19Dtf

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## Bees For Sale.

75 colonies in Improved Dovetailed Hives, in lots to suit purchaser.

O. H. HYATT,

13Atf

SHENANDOAH, Page Co., Iowa.

## BOYS WE WANT WORKERS

Boys, Girls, old and young alike, make money working for us. We furnish capital to start you in business. Send us 10c stamps or silver for full instructions and a line of samples to work with. DRAPER PUBLISHING CO., Chicago, Ill.

Please mention Bee Journal when writing.

## Wanted Comb and Extracted Honey!

State price, kind and quantity.  
R. A. BURNETT & CO., 199 S. Water St., CHICAGO  
33Atf Please mention the Bee Journal.

# The Novelty Pocket-Knife.

Your Name and Address on one side—Three Bees on the other side.



[THIS CUT IS THE FULL SIZE OF THE KNIFE.]

Your Name on the Knife.—When ordering, be sure to say just what name and address you wish put on the Knife.

The Novelty Knife is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed the name and residence of the subscriber, and on the other side pictures of a Queen, Drone, and Worker, as shown here.

The Material entering into this celebrated knife is of the very best quality; the blades are hand-forged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring-steel, and the finish of the handle as described above. It will last a last-time, with proper usage.

Why Own the Novelty Knife? In case a good knife is lost, the chances are the owner will never recover it; but if the "Novelty" is lost, having name and address of owner, the finder will return it; otherwise to try to destroy the name and address, would destroy the knife. If traveling, and you meet with a serious accident, and are so fortunate as to have one of the "Novelties," your POCKET-KNIFE will serve as an identifier; and in case of death, your relatives will at once be notified of the accident.

How appropriate this knife is for a present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, or a lady to a gentleman, the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid for \$1.25, or give it as a Premium to the one sending us THREE NEW SUBSCRIBERS to the Bee Journal (with \$3.00). We will club the Novelty Knife and the Bee Journal for one year, both for \$1.90.

GEORGE W. YORK & CO.

Chicago, Ill.

Please allow about two weeks for your knife order to be filled.

## Marshfield Manufacturing Company.

Our specialty is making SECTIONS, and they are the best in the market. Wisconsin BASSWOOD is the right kind for them. We have a full line of BEE-SUPPLIES. Write for free illustrated catalog and price-list.

Marshfield Manufacturing Company, Marshfield, Wis.

7A26t

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We are the Largest Manufacturers of Bee-Keepers' Supplies in the Northwest

Send for catalog.



Minneapolis, Minn.

We have the Best Goods, Lowest Prices, and Best Shipping Facilities.

17Dtf

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## 30 cents Cash paid for Beeswax.

low, upon its receipt, or 32 cents in trade. Impure wax not taken at any price.

Address as follows, very plainly,

GEORGE W. YORK & CO., 144 & 146 Erie St., Chicago, Ill.]

Please Mention the Bee Journal when writing Advertisers \*\*\*\*



abundance of stores than they do if they have barely enough to carry them through.

It may not be considered as economical management to give colonies much more honey for winter than will suffice them till fruit-bloom. Perhaps it is not in some places, but it certainly is the best plan here, and colonies so supplied are ready for the supers first, and produce as fine a grade of white comb honey as can be desired. The dark honey, which may be in the combs below, never seems to be carried into the supers, so that feature is no bugbear.—ARTHUR C. MILLER, in the American Bee-Keeper.

### Swarms With Clipped Queens.

G. M. Doolittle directs, in Gleanings in Bee-Culture, to let the queen when found run up into a cage, then let 20 to 50 of the bees enter the cage with her as they rush out of the hive, and then continues:

"As soon as you have secured the queen, lay the cage down in front of the hive, when you will move the old hive back, and put in its place the one which the swarm is to occupy, when the cage with the queen is to be laid near the entrance. Place the old hive where you wish it to stand, or move it up beside the new one at right angles, *a la* Heddon, as you prefer. Have, in a convenient place, two sheets, one of which is to be placed on each of the hives on either side nearest the one now awaiting the swarm, so that they can be spread over them should the swarm attempt to enter these hives upon returning, which they very rarely will do if only one swarm is in the air at once, and if the caged queen and the bees with her is left at the entrance of the new hive. When about two-thirds of the bees have returned and entered the new hive, pull the stopper out from the cage, which liberates the queen, when all run into the hive, the whole swarm will sometimes take wing again, and this is the reason that we wait about giving her her liberty till at least two-thirds are settled in the hive. If several swarms come out together, more sheets are needed, so that, if more than the right proportion of bees draw toward one of the new hives placed on the old stands, a sheet can be thrown over for a little until the bees are drawing about alike to all."

## Dittmer's Foundation!

Retail—Wholesale—Jobbing.

I use a PROCESS that produces EVERY ESSENTIAL necessary to make it the BEST and MOST desirable in all respects. My PROCESS and AUTOMATIC MACHINES are my own inventions, which enable me to SELL FOUNDATION and

### Work Wax Into Foundation For Cash

at prices that are the lowest. Catalog giving

### Full Line of Supplies,

with prices and samples, free on application BEESWAX WANTED.

GUS. DITTMER, Augusta, Wis.

**BINGHAM'S PATENT**  
24 years the best.  
Send for Circular. **Smokers**  
25Atf T. F. BINGHAM, Farwell, Mich.

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### The Pacific Rural Press,

The leading Horticultural and Agricultural paper of the Pacific Coast. Published weekly, handsomely illustrated, \$2.00 per annum. Sample copy free.

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**BEES**  
Smokers, Sections, Comb Foundation And all Apian Supplies cheap. Send for FREE Catalogue. E. T. FLANAGAN, Belleville, Ill.

## Queens you should Have

Does blood tell in other stock? Give your bees a chance. Stock used for breeding the queens offered—not from a sport, but my pick out of an apiary giving last season an average yield as follows:

### Honey-Gathering.

102 lbs. extracted and 68 lbs. comb honey per colony besides increase and stores for winter.

### Quality of Comb-Honey Produced.

"Man! It would dazzle you."—Wm. Envoy, Ontario Government Inspector of Apiaries.

### Wintering Qualities.

Up to the present (January 30) I never found these bees to show the least indication of unrest—always perfectly quiet. They are wintering perfectly.—Frank T. Adams, Brantford, Canada.

### General Commendation.

Out of those queens you sent me I have produced the best race or strain of bees I ever owned. Remember that is saying a lot, as I have tried every breed imported in this country. The bees winter better, build up, and stand cold chilly winds in spring better, and are more suitable than any bees I ever owned. For the season they gave me about double the honey the pure Italians did, and more increase. Glad you are going into the queen-business, and are going to join the ranks again. We are much in want of a few men like you. C. W. Post, Ex-president Ontario Bee-keepers' Association (owns 365 colonies).

S. T. Pettit, Canada's most successful comb-honey producer and bee-keeper, says: "The blood in my apiary is largely the progeny of queens sent by you, and they are grand bees."

### Prices of Queens.

They are duty free to the United States. Tested, \$2.00 each; \$10.00 for 6; \$18.00 per dozen. Untested until July 1, \$1.25 each; \$7.00 for 6; or \$12.00 per dozen. Same after July 1st, \$1.00 each; \$5.50 for 6; or \$10.00 per dozen. Larger quantities, prices on application. Postage stamps taken for fractions of a dollar. To be fair to every one, no selected tested queens are offered. Every one has the same chance. The above queens are bred from a careful selection of Italian and Carniolans. Pure Italian and Carniolan queens same price. Price of full colonies on application. Orders booked as received, and filled as quickly as possible. Order early.

Address, **R. F. HOLTERMANN,**  
Bow Park Co., Limited, Brantford, Ont., Canada  
9DSt Please mention the Bee Journal.



**SHEEP MONEY IS GOOD MONEY**  
if you work for us. We will start you in business and furnish the capital. Work light and easy. Send 10 cents for full line of samples and particulars.  
**DRAPER PUBLISHING CO., Chicago, Ills.**  
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## QUEENS NOW READY TO SUPPLY BY RETURN MAIL.

STOCK which cannot be EXCELLED, bred under the SUPERSEDING CONDITION of the colony, from SELECTED MOTHERS.

GOLDEN ITALIANS, the GREAT HONEY-GATHERERS, having no SUPERIOR and few EQUALS; Untested, 75c each; 6 for \$4.00.

RED CLOVER or LONG-TONGUED ITALIANS, breaking all RECORDS in HONEY-GATHERING; Untested, \$1.00 each; 6 for \$5.00.

The so highly recommended CARNIOLANS; Untested, \$1.00 each; Tested, \$1.25.  
SAFE ARRIVAL GUARANTEED.

**C. H. W. WEBER,**  
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## 50 Colonies Bees For Sale

On 8 Hoffman Frames.  
CLYDE CADY,  
20A2t R. F. D. No. 3, GRASS LAKE, MICH.

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## HONEY AND BEESWAX

### MARKET QUOTATIONS.

CHICAGO, May 8.—The trade in honey of all kinds is light, especially is this true of comb, the little trade that exists is for the best grades. Basswood ranges from 14@15c; that having more or less basswood, willow or other white nectar, 13c; off grades of white, 10@12c; amber, 8@9c. Extracted, white, 5½@6c; amber, 5@5½c; some lots of new extracted offered, but no sales have been made. Beeswax scarce at 32c.

R. A. BURNETT & Co.

CINCINNATI, March 6.—The market in extracted honey is good with prices lower. Amber, for manufacturing purposes, brings from 5½@6½c; better grades from 7@8c. Fancy comb honey sells at 16c; lower grades hard to sell at any price. Beeswax strong at 27@30c.

THE FRED W. MUTH CO.

ALBANY, N. Y., May 1.—Honey market is dull. Very little call now for any grade. Well cleaned out of stock and season practically over. Some comb honey is selling at 14@15c. Extracted, 6@6½c. Beeswax, good demand, 30@31c.

H. R. WRIGHT.

BOSTON, March 20.—The demand for comb honey remains good. Market ranges as follows: Fancy white, in cartons, 15@16c; A No. 1, 14@15c; No. 1, 13@14c; honey in glass-front cases about one cent less. Extracted, California light amber, 7@7½c; Florida honey, in barrels, 6@6½c.

BLAKE, SCOTT & LEE.

DETROIT, Apr. 8.—Fancy white comb honey, 15c; No. 1, 13@14c; dark and amber, 11@12c. Extracted, white, 6½@7c; dark and amber, 5@6c. Beeswax, 29@30c. M. H. HUNT & SON.

CINCINNATI, May 8.—As the warm weather set in, the demand for comb honey is as good as over. There are no settled prices; for whatever is left, prices are made to force sales. Extracted honey is in fair demand and finds steady sales. Amber is sold in barrel lots for 5@5½c; water-white alfalfa, sells from 6@6½c, and white clover brings from 6½@7c. Beeswax scarce and brings 30@31c. C. H. W. WEBER.

NEW YORK, Apr. 7.—Comb honey, last year's crop, practically cleaned up, but as we wrote a little while ago we had received new crop from Cuba, and are now receiving new crop from the South. Demand is fair at 14c for fancy white, 13c for No. 1, 12c for No. 2, and 10@11c for amber.

Extracted. The market is decidedly dull. Very little demand, with large stocks on hand, some of which no doubt will have to be carried over, and indications point to a further decline in prices. We quote: White, 6c; light amber, 5½c; amber, 5c; Southern, 5½@58c per gallon, according to quality. Even these prices are shaded in car lots. Beeswax, scarce and firm at 29@30c. HILDRETH & SEIGELKEN.

SAN FRANCISCO, May 7.—White comb, 10@12½ cents; amber, 7@10c; dark, 6@7 cents. Extracted, white, 5@—; light amber, 4½@—; amber, 4@—; Beeswax, good to choice, light, 26@28c; dark, 24@25c.

The market presents an easy tone, but there are no reductions in quotations. Holders of last crop honey are desirous of effecting a clean-up, and buyers are operating in same only to cover most immediate needs. The new crop will soon be on market, and whether it proves large or small, the fact of it being near at hand is unfavorably affecting the situation for spot stocks.

## WANTED!

Honey and Beeswax. Mail sample and state price delivered Cincinnati. C. H. W. WEBER, 2146-2148 Central Ave., CINCINNATI, OHIO.

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### if you want the Bee-Book

That covers the whole Apicultural Field more completely than any other published, send \$1.25 to

**Prof. A. J. Cook, Claremont, Cal.,**  
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### "Bee-Keeper's Guide."

Liberal Discounts to the Trade.

1861 —ADEL QUEENS— 1902

Adel bees the Standard strain. My 1902 Catalog ready to mail May 1. Send for it. Address, **HENRY ALLEY, Wenham, Mass.**  
18Atf Mention the American Bee Journal.

**BEE-KEEPERS,**

Save Money by Buying

**Hives, Sections, Brood  
Frames, Extractors,  
Smokers, AND EVERYTHING  
ELSE YOU NEED, OF****THE W. T. FALCONER MFG. CO.,  
Jamestown, N. Y.**

Our goods are guaranteed of superior quality in every way.

Send for our large illustrated catalog, and copy of

**THE AMERICAN BEE-KEEPER,**

a monthly for all bee-keepers; 50c a year. (Now in 12th year. H. E. HILL, Editor.)

W. M. GERRISH, E. Nottingham, N. H., carries a full line of our goods at catalog prices. Order of him and save freight.

Please mention Bee Journal when writing.

**\$300,000,000.00 A YEAR**

and you may have part of it if you work for us. Uncle Sam's poultry product pays that sum. Send 10c for samples and particulars. We furnish capital to start you in business. Draper Publishing Co., Chicago, Ill.

Please mention Bee Journal when writing.

(Continued from page 324.)

so I turned back lingering eyes, thinking that perhaps it might be many a year (and possibly never) before I should see the remarkable sight again.

**GROWING ALFALFA.**

To me, one of the most interesting developments throughout the arid regions of the West, was the growing of alfalfa. Almost no other hay will grow in those hot irrigated districts, and yet this thrives wonderfully. A hot, dry climate and moist roots give us a fodder that, for fattening cattle, and making them grow sleek and handsome, beats anything else I ever saw. For work-horses it is not quite the equal of timothy or oats; but as nothing else is to be had, except at considerable expense, farm-horses are able to do a big day's work on it, so I was told.

When Mr. Chambers and I were driving by one of his apiaries we came across a field of alfalfa that had reached its perfection of growth. It was in the height of bloom, and the beautiful violet blossoms, and the hum of the bees, made a combination alike pleasant to sight and hearing. I attempted to take a photo of it, but the result was very disappointing. However, I will show it to you as it is. If you were standing out in the field the tips would reach very nearly up to your chest; for alfalfa grows in Arizona, especially in that section, as it does nowhere else.

But one of the novelties to me was the mode of harvesting this crop. It is cut with mowers as we cut hay in the East; but instead of being put into barns it is always put up outdoors in stacks, giant in size as compared with the little mounds of hay in the rain-belt. Some of these great masses of alfalfa hay, I should judge, were 60 feet long and 25 wide. Instead of pitching the hay from a wagon with a pitchfork on to the stack in the good old-fashioned way, it is carried up by a simple piece of mechanism.

The climate in Arizona is so dry and warm, and there is so little rainfall, barns are not needed. (This is true of all the alfalfa-growing regions in the West that I visited.) It is, therefore, not necessary, or not so much so, to make the stack shed water as with us in the East. The alfalfa is piled up until it reaches the height of 15 or 20 feet, and then is left to stand till used. The hay, when stacked, is of a beautiful light-green color, and remains so for a year or more, or until it is used, except the portion that is exposed to the direct rays of the sun, which bleaches it somewhat. Stacks such as we have in the East would be altogether too small; and, besides, the hay would be bleached too much. These large mounds economize room, and at the same time keep the hay in much better condition for stock when it is needed.

# Advance in Prices of Foundation...

We quote an advance of **THREE CENTS PER POUND—**  
**WHOLESALE AND RETAIL—in Comb Foundation.**

We are much in need of Beeswax, and pay the **HIGHEST PRICES.** Send us all you have to spare, either for cash or trade.

**Chas. Dadant & Son,**  
**Hamilton, Ill.**

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# THE DANZENBAKER HIVE

The best comb-honey hive on the market may be obtained of The A. I. Root Co., of Medina, Ohio; at any of their branch houses, and many of their local and jobbing agencies. Send to the address nearest you, and save freight, and get quick delivery.

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The A. I. Root Co., 10 Vine St., Philadelphia, Pa.  
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The A. I. Root Co., Mechanic Falls, Me.  
J. B. Mason, Manager.  
The A. I. Root Co., 1024 Miss St., St. Paul, Minn.  
H. G. Acklin, Manager.  
The A. I. Root Co., San Antonio, Texas.  
Toepperwein & Walton, Managers.  
The A. I. Root Co., 1230 Md. Av., S. W. Washington.  
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The A. I. Root Co., San Ignacio 17, Havana, Cuba.  
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Jos. Nysewander, Des Moines, Iowa.  
Jno. Nebel & Son, High Hill, Montgomery Co., Mo.  
Prothero & Arnold, Du Bois, Clearfield Co., Penn.  
Carl F. Buck, Augusta, Butler Co., Kan.  
W. W. Cary & Son, Lyonsville, Mass.  
The L. A. Watkins Mdee. Co., Denver, Colo.

Would you increase your profits? Then try the Danz. Hive. It's used from Maine to California. Read the following:

MECHANIC FALLS, MAINE, Feb. 28, 1902.  
THE A. I. ROOT COMPANY, Medina, Ohio.

GENTLEMEN:—I am VERY, VERY pleased that you are willing I should recommend the Danz. hive. I have had a great many inquiries regarding it, and have not felt at liberty to recommend it over our regular hives. At first I was prejudiced against it, but the sales have increased without recommendations, and wherever I have sold they have bought again and praised the hive with extravagant claims, and I am forced to the conclusion that it is the BEST COMB-HONEY HIVE on the market.  
J. B. MASON,  
Manager North-eastern Branch The A. I. Root Co.

The above unsolicited testimonial speaks for itself.

M. H. Mendleson, of California, has just ordered 700 Danzenbaker supers. Sales are doubling every year. Still the demand for honey in Danz. sections is greater than the supply. If you are wise you will raise comb honey in Danz. hives.

**THE A. I. ROOT CO.,**  
**MEDINA, OHIO, U.S.A.**

**GEORGE W. YORK & CO.,** 144 & 146 Erie Street,  
are headquarters for ROOT'S BEE-KEEPERS' SUPPLIES IN CHICAGO. Send to them for their free Catalog. CHICAGO, ILL.